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ABSTRACT

Case studies were developed and analyzed during the spring and summer of 1991 for 10 workers participating in workplace classroom training. These adults were nominated by their respective labor unions because they provided good illustrations of how workplace educational programs can affect literacy and job performance. Descriptive methods used to collect and record data were interviews, a background questionnaire, and a daily log sheet of job activities for 2 consecutive days. Students translated these log sheets into job/task analysis records and indicated the extent to which job tasks were affected by the literacy courses taken. All students noted improvement in oral, written, and reading skills, which enhanced their own self-esteem and allowed for greater opportunities on the job and in their everyday life. Those workers who took technical courses noted progressive development in technical abilities. Job performance improved whether the course was relevant to all aspects of their work or not. Students became more future-oriented and articulated personal and family goals. Parents influenced their children to develop ambitions beyond high school. (Following the summary of results are the case studies, making up the bulk of the document. They contain illustrations to support the effectiveness of the courses and positive impact of classroom training on the work environment and world outside the workplace. The utility of work logs is also addressed.) (YLB)

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THE INFLUENCE OF WORKER EDUCATION PROGRAMS ON JOB AND LIFE SKILLS

CASE STUDIES
from
The Workplace Education Program
of
The Central Labor Council
and
The Consortium for Worker Education

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Executive Summary

This study illuminates the importance of workplace education programs and the integral role they play in the lives of adults who participate in them.

Ten workers were nominated for case studies as good, but not extraordinary, examples of how workplace classroom training affects their work and other aspects of their life. The ten workers participated in a variety of union sponsored classes ranging from basic education to advanced computer courses. Those students who were not fluent in English were initially enrolled in ESL classes.

The primary method of inquiry was qualitative, with emphasis placed on interviews of at least two hours in duration per student. Each student also completed a background questionnaire, and was asked to keep a daily log sheet of job activities for two consecutive days. They were then asked to translate this log form into a job/task analysis record and to indicate the extent to which job tasks were affected by the literacy courses they were in. In addition to providing information to support interview data, these logs show promise as a self-report technique for determining the extent to which workplace education interventions lead to work related outcomes.

In the case studies illustrations were provided by the students to support the effectiveness of their courses and the positive impact classroom training had on their work environment and their worlds outside the workplace. All students noted improvement in oral, written, and reading skills which, in addition to enhancing their own self esteem, allowed for greater opportunities on the job and in their everyday life. For example, many started to read the tabloids on a regular basis, and others graduated to higher level newspapers. Those workers who took technical courses noted progressive development in technical abilities and a marked improvement in their ability to do simple calculations. Job performance improved whether the course was relevant to all aspects of their work or not. All of the interviewees stated that their classes significantly changed their lives for the better and provided them with the necessary tools to climb the social and economic ladder. Students became more future oriented and articulated personal and family goals. As parents, many of the students influenced their children to develop ambitions beyond high school.

THE INFLUENCE OF WORKER EDUCATION PROGRAMS ON JOB AND LIFE SKILLS

The Consortium for Worker Education is a collaboration among 22 unions which sponsor workplace literacy programs. In any one year an average of 8,000 students participate in these programs. Students enroll in classes that can be broadly classified as being of three different types: English as a Second Language (ESL), Basic Education (BED), and Union Specific or Skills Programs. Within each of the three types, classes range from those that offer basic instruction in reading/writing up to GED classes for the attainment of a high school equivalency diploma. The Union Specific or Skills courses focus on the mastery of various job related literacy skills. Classes can range in duration from 2 to 49 weeks and meet from 4 to 40 hours per week.

Several studies of this workplace education program have been undertaken, ranging from descriptions of the courses and services of specific union programs to quantitative assessments of literacy gains by program participants.* The current study complements this earlier work by providing an in-depth look at program participants and how their involvement in a worker education program affected their current job, future orientation to work and education, and other elements of their lives.

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*For example, see Gross, Alan & Feldmann, Shirley, Evaluations of the Workplace Education Program of the Central Labor Council and the Consortium for Worker Education 1990, Center for Advanced Study in Education, CASE Tech Report #12-90 and Perin, Dolores, et al., CASE Tech Report #02-90.

Case studies were developed and analyzed during the spring and summer of 1991 for ten workers. These adults were nominated by their respective labor unions because they provided good illustrations of how workplace educational programs can impact on literacy and job performance. While the workers selected were by no means extraordinary examples they, on the other hand, cannot be presumed to be representative of all program participants. However, their cases should be viewed as good examples of how worker education programs can affect the lives of ordinary individuals.

Methodology

A qualitative approach was used as the method of inquiry to describe the impact of classroom learning on ten union employees' skills. Several descriptive methods were used to collect and record data during the research phase of this study.

Interviewing. As a first step, a representative from each union literacy program in which a worker was enrolled was contacted for background information pertaining to the student and the types of courses taken. Then individual interviews of at least two hours in duration were scheduled with each of the ten student-workers. Interview questions were open-ended enough to permit the researcher to gather a wide selection of potentially relevant data, while at the same time they focused on the more central aspects of the study. Handwritten notes were used to record material and to keep records. Since it was almost impossible to chronicle everything word-for-word during

interviews with the ten respondents, a tape recorder was used to supplement notetaking.

Background Questionnaire. As a means of finding out about the group being studied, it was necessary to ask all ten student-workers to describe themselves by answering basic biographical questions about their age, sex, educational and work status through a questionnaire distributed to all students during the first interview.

Work Logs. Students were also asked to keep a daily log sheet of their job activities for two consecutive days. They were then asked to translate this log form into a job/task analysis sheet on the third day and mail both forms to the investigator in a stamped, addressed envelope provided to them for their use. Instructions for completing these forms were explained in great detail at the end of each interview. Basically, students were asked to list the major tasks they engaged in at work and rate the extent to which their current coursework impacted on these tasks. The work logs were used not only to support the development of the case studies but to determine whether such a self-rating procedure was viable for use on a much wider scale in worker education programs.

Interview notes, audio tapes, questionnaires, log forms, and job/task analysis sheets were reviewed by the researcher after all the data were collected in order to prepare the case studies. In the case studies the identities of all students have been protected; pseudonyms have been used for both persons and places,

with the exception of union affiliations.

Validity and Reliability of Data

The validity and reliability of this research was assessed through triangulation, which can be defined as an attempt to collect data from a variety of viewpoints, using a variety of approaches to determine if different information sources support or contradict a particular result or conclusion. For example, the interview data were checked against written data on the questionnaires, log sheets and job/task analysis forms, and the information provided by the union liaisons. In addition, data relating to the same area of inquiry but derived from different phases of the interviews were compared. Questions using different phraseology were often repeated during interviews, and similar questions were asked at different points on the questionnaire.

The Ten Workers

Six men and four women with a mean age of forty were selected by their respective unions to be included in this study. The unions considered these students to be good examples of the effectiveness of union programs. Each student was interviewed for at least a two hour period and readily provided full access to whatever notebooks or class materials they had with them at that time. Background questionnaires were filled out halfway through the interview. Explicit directions on how to fill out the log and job/task analysis forms were given at the end of the session. The subsequent case studies integrated information

gathered during interviews, from questionnaire responses, log sheets and task analysis forms.

Summary and Discussion of Case Studies

Ten workers selected by various unions as representative of the positive impact union programs have on the workplace were interviewed with the guiding question being, "What effect did your classroom training have on your work and life?" All of the students interviewed were eager, cooperative participants who willingly gave up their valuable time to meet with the researcher. During the interview session, eight out of ten students completed the background questionnaire without difficulty. One student with limited literacy skills required the assistance of the researcher. Another, a recent immigrant from Guatemala, received help from the bilingual union liaison.

Eight out of ten interviewees completed both the daily log sheet and task/analysis form although several had to be reminded through phone calls and letters to return these forms to the investigator. One student with barely minimal literacy skills was unable to complete the forms. One other student did not turn in either form despite many requests to get him to do so. The majority of the students completed the forms correctly.

Each of these students took one or more of the following subjects: Basic Skills, GED, ESL, Nursing, Draping, Computer, and Heat and Plant Technology. Three of the ten students selected classes in more than one subject area. One student, for example, chose ESL, GED, and nursing classes. Another took GED, ESL, and

draping courses. Some students preferred a range of classes in one subject area; for example, several took beginning, intermediate, and advanced ESL classes. Another was involved in both beginning and advanced computer courses.

All of the interviewees had nothing but high praise for the classes, course content and materials, teachers, and union liaisons. Everyone repeatedly stated that their lives were changed significantly for the better by taking these union sponsored classes. Eight of the students commented on the direct impact their course(s) had on their job performance. One interviewee's course was unrelated to his current position as a maintenance worker but was central to a new position he aspired to. The other student, who worked as a housewife, generally reported on how the education program affected her self esteem and future orientation.

Impact on the Job

Communication Skills. The majority of workers interviewed noted improved oral communication skills both on the job and at home. Students who had taken GED and/or ESL classes remarked that they were no longer reluctant to speak directly to employers, supervisors, co-workers, and customers. They also reported greater ability to comprehend what others were saying to them. For example, their phone skills improved to such an extent that they were allowed to answer the phone at work and take messages. Employers took note of these improved skills and often gave them added responsibilities and/or liberties. For example,

one worker was allowed to use her employer's computer for her own personal work. Another student was able to talk directly to the customers and learned more about New York City and the people who came into his shop. The one student who did not work could now communicate more effectively with her children's teachers and doctors both in person and on the telephone. She could also food shop on her own without difficulty.

Reading skills also improved greatly for those students in Basic Education, GED, and ESL classes. In several cases, this proved vital to the well being of the person. For example, by reading labels and instructions on the boxes he was handling, one student learned he was handling hazardous chemicals without wearing the proper protective gear. He also learned to read in which direction chemical spray should be dispersed. Another student now understood packaging and stacking information on boxes. He was also able to read safety instructions on electrical outlets and circuits. The cutter in the garment district could now read and identify color words on his own, something he had not been able to do for many years without assistance.

Those students who took advanced classes in Heat and Plant Technology and Computers, for example, broadened their vocabulary base and would regularly read technical material published in those areas. Many of the interviewees mentioned that the scope of their reading material expanded and became more sophisticated. Some who were unable to read English before starting their classes began to read The Daily News. As other students' reading

skills improved, they graduated from The Daily News to higher level newspapers such as Newsday. Many noted that they now listened to political commentary on radio talk shows and were able to follow the discussions.

Writing skills which were either non-existent or negligible also improved, for the ESL and GED students in particular. They could now write memos to their employers and peers. They were also able to write down phone messages -- messages they had difficulty comprehending aurally prior to their GED and/or ESL classes. The cutter in the garment district was able to note important information on the labels of damaged goods, such as "shady," "spotted," etc. The designer's assistant could write key words such as "waist," "front," and "down" on patterns. The nurse's aide could now read and write notes in patients' records.

Technical Skills. All students noted progressive development in their technical skills. Even those students who were just taking GED or ESL classes noticed a marked improvement in their ability to do simple arithmetic, for example. This was of great importance to those workers employed in carpentry positions. For those students who were studying Nursing, Plant and Heat Technology, Computers, Draping, and Sewing through ESL class, their technical skills in these areas also improved. In one case, a secretary's knowledge of Lotus spreadsheets allowed her to complete assigned tasks at a much faster rate than other secretaries who were computer illiterates. This woman was so inspired by her computer classes that she bought a computer for

home use.

Impact on the Workers' Lives

Self Esteem. A greater sense of hope for the future, dignity, and self respect was apparent in all the workers. For example, several were now student representatives for their classes or unions and were surprised and pleased that they could speak in front of large audiences. Families of these students expressed pride in their numerous successes.

Aspirations for the Future. All spoke of future goals for themselves and their families including studying for additional licenses for their particular jobs and/or attending college. Several mentioned their desire to make a career change sometime in the future. Others felt that they now had the courage and ambition to do things they had never thought possible before. Interestingly, four interviewees expressed interest in beginning a teaching career which is, in part, a credit to their union programs and instructors.

Influence on Family. For those workers with children, the union classes were invaluable. These workers often studied or did homework with their children. Those who were unable to read to their children before or even use a dictionary were now able to do so. Some noted that they had bought dictionaries for the very first time. One interviewee had even bought a set of encyclopedias for his children; another purchased a computer. In several instances, what was learned in the classroom was discussed at home with their families in the hope of influencing

their children to go forward with their education. With their parents stressing the value of education, many of these youngsters developed ambitions beyond high school. Several were thinking seriously about attending college and pursuing professional careers.

Undoubtedly all ten interviewees had successful experiences in their union courses. Each one of them repeatedly stressed the value of the courses they attended and provided concrete illustrations to support their assertions. Job performances improved whether the course was relevant to all aspects of their work or not. If the course was totally unconnected to their present position, as it was in the case of one interviewee, it still was a significant rung on the ladder to success.

These workers viewed schooling as not just a means to get ahead, but as the all-important catalyst for a richer and better life. They did not perceive schooling as an end in itself but as a means to express and achieve other important goals such as better employment opportunities and civic awareness. These adults also hoped that by setting an example, their families, in particular their children, would follow in a similar direction. Students came to know both themselves and their social context through the various unions' course offerings.

Case Studies

Andre Browne

Andre Browne was persuaded by a friend to take one of the ESL courses offered by the American Federation of State, County and Municipal Employees Union, District Council 1707, in order to improve his English skills. Given a placement test and enrolled into an English class in 1990, Browne has continued taking ESL classes with DC 1707 twice a week for three hours per session.

Browne, who is thirty years old, emigrated from Haiti in 1989 to join his mother and sisters, who were already living in New York City. It was with some regret that Browne left Haiti; he had already obtained a bachelor's degree in civil engineering from a Haitian technical institute and had begun a high school teaching career as a math instructor. However, as the eldest son, he felt compelled to help his family settle here. Despite his fluency in Haitian Creole and some knowledge of Latin and English, his poor English skills prevented him from pursuing any work in his chosen field. Nor could he afford going to college. He, therefore, was forced to take a low paying factory job washing linens and clothes for hospitals and hotels.

Eventually, Browne tired of this job and switched to a tool company on Long Island where his cousin worked. According to Browne, this job paid a slightly higher wage and was less taxing. His primary responsibilities were cleaning, packing, and shipping electronic plastic and chemical products. Since Browne had a minimal command of English, he had little or no interaction with

his employer or customers and relied upon his cousin for guidance with the various tasks he was assigned to do.

Shortly after Browne started at the tool company, a family friend suggested he enroll in District Council 1707's ESL program. After taking an oral and written placement test, Browne was placed in an ESL course in September, 1990. Most of his work in this class consisted of English conversational skills and their practical application, grammar, writing, and reading. Browne stated, "...the course was excellent. My English improved immediately."

Browne's ESL course helped his job performance in a number of significant ways. First, his communication skills improved. Whereas he had been afraid to speak to his employer before, he could now directly confer with him rather than using his cousin as an intermediary. Also, he began to talk to customers and learned more about them, their particular backgrounds, and New York City. He was able to answer the phone, comprehend, and take messages. Perhaps most importantly, Browne was now able to read the labels and instructions on the boxes he was handling. This led to the discovery that many of these packages contained hazardous materials, and, in fact, many of the labels demanded that the handler of these materials wear a face mask. Browne brought this information to the attention of his employer and was subsequently given protective gear to wear.

Browne's daily log sheet and Job/Task Analysis form concurred with what was said during the interview. For example,

he noted that although the course did not teach him how to use a "Mold Release Spray," it did teach him to recognize words such as "upright position." As Browne stated on this Job/Task Analysis form, "we were not taught how to use it, but a word important in the use of a spray: upright position. I understood easily when the boss told me. The dispenser sprays better in an upright position."

Browne's ESL course has also given him the confidence to begin thinking about returning to college and studying Bilingual Education. He then hopes to teach in the New York City public schools, which he states, "will pay my tuition to further my study in civil engineering."

Edward Samson

Edward Samson takes advantage of the United Auto Workers, District 65, General Education Diploma courses. In many respects, his background and lack of skills is typical of the average student enrolled in UAW classes, which meet for three hours per evening twice weekly for 37 weeks during the academic year.

Samson left his native Jamaica and his job as a gardener and landscaper to join his wife in New York City in 1981 when he was thirty years old. Since he left high school at the age of fifteen without a diploma, he had few skills. His first job in New York City was working as a laborer for $5.00 an hour. Samson was interested in learning about carpentry and "decided to hang out around workplaces to observe and learn." After awhile, he

bought his own tool belt and "free-lanced." That is, Samson would get up early in the morning and walk the streets looking for jobs. "By walking the streets with tools rather than making phone calls, I made friends everywhere and was hired right on the spot." Eventually, his salary level rose to approximately $12.00 an hour.

When Samson's daughter was born, he decided to continue his education. At first he attended a GED course at a Brooklyn library, where he was tutored in reading and math. However, his tutor suggested he switch to the United Auto Workers, District 65, GED course which he did in the fall of 1988. Although he has been attending these classes for three years, he has not been a regular student, because he has often had to take jobs to support his family. So far, his studies have focused primarily on reading and math although his teacher has brought relevant science and social studies topics into their class discussions. For example, his instructor taught the class how to fill out income tax forms. As Samson said "we get plenty of good teaching." At this point, Samson is not sure when he will take the GED test, but will do so when he feels "comfortable and confident in all subjects."

Samson stated that the math and reading portions of his class have helped him significantly on the job. Before, he could not remember simple mathematical skills, but he is now able to perform such tasks as measuring a beam with ease. He can also read blueprints now and has a greater understanding of geometry.

For example, he states on his job analysis task sheet that "this course helped me estimate materials for the job. I can also read directions better."

Samson's goals include a college degree in either teaching or training children. As he said "I want to help kids who are like me."

Mabel Mason

As a member of the Hotel, Hospitals, Nursing Homes and Allied Service Employees Union, Local 144, forty-nine year old Mabel Mason has taken several courses the local has offered in the areas of pre-high school equivalency, pre-health and ESL. She currently has been attending a fifteen week session which includes a combination of classes and meets three times weekly for four hours per class meeting.

Mason, who emigrated from Port-au-Prince, Haiti, by herself fifteen years ago, has three children ranging in age from eighteen to twenty-seven who remained in Haiti when she came to the U.S. alone. As time went on, she was able to bring her mother and brother to New York, but her children still reside in Haiti. Her reasons for coming to the U.S. by herself are simple: "I came for a better life. Eventually, my whole family will have a better life."

Mason's first job in New York City was as a housekeeper. After tiring of the long hours and low pay, she found a job in a nursing home in Brooklyn nine years ago where she still works. Her duties consist of feeding, washing, walking with and talking

elderly patients. However, as she writes on her questionnaire and on the Job/Task Analysis form, her communication skills with her employers and patients were minimal prior to her taking the union sponsored ESL course.

After Mason was at the nursing home for two years, the home joined Local 1144. When the nursing home's Director of Nursing informed Mason that she needed a state licensed practical nurse certificate by January, 1990, Mason took the licensing test but failed. Then in May, 1989, Mason decided to take both an ESL class and a nursing course offered through the union. Both of these classes helped her pass the licensing exam in January, 1990. Mason was so excited by her success that she decided to take a GED class in order to gain a high school diploma. At this time, she attends classes three days a week in a variety of subjects including reading, math, social studies, and science with 21 other students. Mason hopes to take the GED exam in the near future and intends ultimately to pursue an LPN degree.

Although Mason does no reading or writing at work except for minimal record keeping, she contended that her courses had a great impact on her job. She stated "My vocabulary expanded. I know how to use the dictionary and can explain myself to my supervisors and patients. My supervisor is very pleased! I can also understand what the patients are saying. It has helped my job; it helped my life." Her Job/Task Analysis form concurred with her interview statements.

Mason described how her reading skills improved. She now

reads the newspaper on a more frequent basis and no longer has difficulty comprehending television and radio news reports. However, she is still somewhat hesitant about writing but hopes her fears will diminish as her skills improve.

Paul Velez

A native born New Yorker, 50 year old Paul Velez is employed as a cutter in the garment district and has been a member of the International Ladies Garment Workers Union, local 10, since 1967. However, through the Consortium of Worker Education, he has been taking basic education classes through the Hospital and Health Care Employees Union, Local 1199, since 1988. His small bi-weekly classes provide him with the foundations of reading, writing, and basic arithmetic.

As a self described "tough kid," Velez was pushed along through elementary and junior high school despite his lack of literacy skills. He was not the only one in his family who was illiterate, however. His mother could not read or write, and only one of his siblings was literate.

During the tenth grade, Velez was sent to reform school in upstate New York. His parents were in favor of this change, for they thought he would finally learn something in a different environment. Instead, Velez did much outdoor manual labor and found the teachers and quality of education to be just as poor as they were in his Bronx neighborhood schools.

After his release from reform school, Velez was still illiterate and decided to leave school altogether. It was then

that he started working in a variety of factory and construction jobs. When he was twenty years old, he began working in the garment district of Manhattan for approximately $51.00 a week as a "floor boy" or sweeper for the cutters, who were busy cutting out patterns from bolts of fabrics.

Many of Velez's co-workers urged him to go back to school and to get professional training in cutting. However, none of them knew Velez was illiterate. Only Velez's wife, a school nurse with an R.N. degree, knew his secret, which he revealed to her during their courtship. "People just didn't know. I'd sit in the back of the room and open a newspaper and pretend to read. I couldn't even play cards because I could not read them. I'd always make excuses in order to not play. I'd usually say, 'It's a sissy game.'"

In our world, literacy skills are taken for granted, so Velez had to learn many tricks to compensate. As he stated:

> You learn how to get away with things. For example, we'd go to the movies and if someone didn't have their glasses and would ask me what was written on the screen I'd tell them I have to go to the bathroom. You find ways to get out of things. You can't voice your opinion because you don't know anything. You can't read. Once, for example, a guy was talking about a baseball player. When he asked me what I thought about the player, all I could say was that he was just an okay player because I couldn't read the stats on the guy.

With a wife and children to support, Velez decided to seriously study cutting and the cutting machine. But his inability to read the color labels and tickets forced him to take them home to his wife to read for him. Eventually, Velez joined

another dress house and started work as a fabric spreader. Although he was still somewhat inexperienced in the technique of spreading and cutting, his employer liked him and allowed him to stay. It was in this dress house that Velez "learned the ropes" and gradually advanced to the position of foreman. However, when the work got slow and employees were either being laid off or having their hours shortened in 1967, Velez joined the union and took a union job at another factory in the garment district, where he has remained to this day.

Still, Velez's illiteracy was a hindrance. His problem with color names still existed. As he explained, "I had learned to memorize basic colors with my wife's assistance, but now they were using different names for the same colors -- like scarlet and turquoise." Again, he would take the tags and labels home to his wife, who would help him identify and memorize the words. Also, his children were now old enough to assist him.

The turning point for Velez occurred when he decided to go to school to learn how to grade and size patterns: "I didn't know how to read and write but didn't think that was necessary for grading skills. However, the teacher would write on the board, and I was lost." Unable to complete any of the work for the class, Velez enrolled in a local library literacy program but was not given his own tutor for two years. Therefore, when someone told him in 1988 about the Basic Skills program Local 1199 was running, Velez signed up for their basic literacy class and has been attending ever since.

Velez has high praise for the program and the impact it has had on his life. "Why, I couldn't even read the Bible before that class!" He discovered that the program dispelled his nervousness and the anxiety of the other students. His courses covered all basic skills with an emphasis on basic arithmetic, reading, writing, punctuation, and dictation. Velez found, however, that "you have to help yourself, also." He, therefore, practices reading signs on trains and reads The Daily News on a regular basis. He finds The New York Post still too hard, with "too many big words," and says about his practice reading on the subways "I can't do it all yet, but I'll get there. I don't feel like I'm an illiterate anymore. I can read and write a little, but it just takes time to get there."

Although Velez is highly enthusiastic about the program and his teachers, he states he "was cheated by the system" throughout his youth and has tried to control his bitterness. However, his pleasure in his new found skills is evident:

> Now I can read the tickets and labels on materials myself. Before I would identify the colors because of color swatches. I would take the ticket home to my wife. Now I can do it myself! Mustard, periwinkle, chartreuse, charcoal....Before I couldn't write information on the tickets of damaged goods and one person on the job who knew of my problem would help me. Before I couldn't write "damaged" and would just put a "da" on the label. Now I can spell it out. My wife used to help me, but now I can do it myself and also write words like "shady" or "spotted." I also didn't know mathematical symbols such as "times" or plus or minus. And I knew nothing of fractions!

Velez hopes to take the GED one day when he feels "the time is right." He aspires to eventually become a teacher and is

proud that his schooling has inspired his children, his daughter in particular, to attend college.

Unfortunately, Velez's reading and writing skills were still at such a rudimentary level that he had great difficult filling out the questionnaire and other forms.

Roberto Valente

As a member of the Industry Training Program of New York Hotel, Bartenders, and Club Employees Union, Local #6, thirty-three year old Roberto Valente has taken advantage of the GED courses offered by his union more than once. He presently attends GED classes twice weekly for three hours each night, with the local's schedule following the New York City Board of Education's calendar, and intends taking his GED exam in the near future. When he receives his GED degree, Valente hopes to take vocational courses which are offered by the union and that relate to the hotel industry.

Valente, a native New Yorker, joined the Army shortly after dropping out of high school. However, he soon discovered that Army life did not agree with him and was soon discharged. After trying numerous temporary jobs, Valente began working at a large New York City hotel as a doorman in 1980. It was during his stint at this hotel that he took his first GED course through the union. Unfortunately, he only attended class sporadically, and, therefore, failed the test. As he stated, "I just didn't care then."

In 1988, Valente left the hotel for a better position as a

maintenance assistant at another hotel. Since he enjoyed working with his hands, he saw this as a real step forward. As the head carpenter's assistant, Valente helped his supervisor rebuild many of the rooms which the hotel was remodeling. As Valente said, "I do everything. I build T.V. cabinets, shelves, closets, door frames, and fix plugs. I also break walls down, fix molding and repair ceiling tiles. I like the job; it's exciting."

During the time Valente began his new job at the hotel his thinking changed and he began "to realize my shortcomings. I wanted to show my children I could go back to school." So, in 1990, he began another GED class through the union. "I knew I needed a GED to get additional licenses. And I want to make more money. I want a career, and I want to show my children that school is important." At this time, his GED courses have focused primarily on math and English. His English class stresses paragraph writing, reading comprehension, and punctuation. His math class has consisted of arithmetic, fractions, and basic geometric principles including radius, circumference, and diameter. He anticipates taking social studies and science courses in the future.

Valente is very pleased with his courses, in particular his math class, which he states "directly applies to my work as a carpenter. For example, I now know how to use a tri-square and a tape measure." He explained that before his GED class, he had trouble with math and figuring out simple measurements and angles. As he put it, "School helped me hold onto this job." He

further declared: "I can now read blueprints at work and understand fractions. I don't have trouble with word problems anymore. At home I used to use a calculator before; now I can balance my checking account myself. And when I shop, I now know what 20% off means."

Valente likened his GED course "to putting a foot in a doorway." Not only does he read more, but he has a greater understanding of world events. He recently bought a set of encyclopedias for his children and has an easier time reading them to his children than he thought he ever would.

His GED course also gave Valente greater self confidence: He now is the union spokesperson for his class and stated, "I never imagined myself speaking up in front of a large group, but now I do it." After he decides to take and then passes the GED exam, his future goals include schooling in refrigeration and air conditioning through Local 6 training programs. Ultimately, he would like to go to college to study engineering.

Inez Romelio

Thirty eight year old Inez Romelio has been working for the National Benefit Fund, Local 1199, since 1975. It was through posted announcements and word of mouth at her place of employment that she heard about the Computer Applications Program offered to all unions. The goal of these classes is to give an overview of computer technology and introduce computer application through lectures and hands-on experience. The program consists of three ten week class cycles. Classes meet one evening a week for three

hours.

When Romelio first started at the National Benefit Fund, she was employed in the dental department as a claims clerk. However, over time she worked her way up to her present position as secretary for the assistant director of the Hospital Benefits Division, grade 7. A native New Yorker, Romelio had one year of college at Bronx Community College learning numerous secretarial skills including stenography and typing before joining the National Benefit Fund.

As Romelio's office began to use computers for various tasks, she decided it would be to her advantage to learn about computers and in 1985 attended two sessions of a computer literacy class which was announced by Local 1199. However, Romelio could not continue with the course because of her family obligations and the stress of her job. But, as she said, "That course planted a seed in my mind. My own job was going to go computerized with Lotus. I didn't know what was going on and the secretaries need to know." Although she only attended two classes, she learned something about the computer and "was no longer intimidated."

In 1990, Romelio decided to try taking courses again since her children were now older and more independent. In January, 1991, she enrolled in a computer literacy class and learned about the keyboard, various programs, spreadsheets, and Lotus software. Romelio bought an IBM computer and "PSF WRITE" software which is used at her job. Although her instructor taught the class "PC

WRITE," she had no trouble learning her employer's word processing software since she was now familiar with the computer in general. As she said "Once you learn one program, you can pick up another."

Romelio found her class experience to be so rewarding that she took an advanced computer literacy class and is currently learning to use the Apple computer. Although they don't use the Apple at her job, her daughter uses one at school. Now, mother and daughter discuss Apple programs together. And, in fact, Romelio has taught her daughter to use the IBM computer at home and "PSF WRITE." Consequently, her daughter does her homework on the computer and composes her own original stories and compositions on it, too.

Although Romelio's initial job responsibilities included typing, stenography, and using the dictaphone, she has now expanded her repertoire of skills to include the Lotus spread sheets. Prior to her computer courses, Romelio would have to type in or delete names and addresses on long lists. This, of course, became an arduous task of retyping many pages. However, with her new found knowledge of the Lotus spreadsheet, her job has become much simpler. As she said, "Lotus makes my life a lot easier."

Moreover, Romelio recently discovered that her company will be getting a new data point terminal which will use word processing and spread sheets only. All typewriters will be taken away. Of course, Romelio is quite pleased that she is already

ahead of the game. "My bosses and the other managers were thrilled with my skills since the other secretaries could not do it." However, Romelio has received no salary increase because of her advanced skills.

Romelio has additional plans for her future: she hopes to learn "WordPerfect" and then take advanced courses in computers at Lehman College. She frequently mentioned the impact computer literacy has had on the rest of her life: "I read more now about computers and subscribe to PC Sources, a computer magazine. I now know what DOS means, and if I didn't, I'd go to a library to look it up. My computer lingo has increased dramatically!" In addition, Romelio does all her own writing on the computer including personal letters and inquiries about bills. Her Job/Task Analysis form concurred with her interview statements: her computer classes greatly assisted her in her work on the job.

Juana Martinez

Juana Martinez, a 40 year old housewife who emigrated from Puerto Rico over twenty years ago, recently began taking ESL courses through International Brotherhood of Electrical Workers (IBEW) Local 3, where her husband, an electrician and cable operator, is a member. She presently attends bi-weekly classes in ESL sponsored by Local 3 at a Brooklyn site which run for approximately fifteen weeks. Before beginning classes over nine months ago, Martinez was pretty much confined to her home and her household responsibilities. With three children in the family, her husband did not want her to go out or do anything to improve

herself. Therefore, her English skills were minimal. She rarely conversed with Americans and relied upon her children and husband to make phone calls for her and to assist her with the shopping.

However, Martinez's class has opened up a whole new world for her. Her class focuses on reading, writing, grammar, and conversational skills. To Martinez's enjoyment, some of the reading involves women's issues and current affairs. Although she has been attending school for less than a year, Martinez has noticed great changes in her life and her attitude. For example, she can now communicate with the doctors regarding her children's illnesses and regularly talks to their teachers. She has less difficulty with phone conversations and shopping and now reads the Daily News regularly. Her self esteem has grown to such an extent that she assists other students who are less advanced than she is. Martinez also feels that she is not as shy and retiring now as she once was. Her children are very proud of their mother, too, as is her husband, who initially was against her going to school. Martinez has future goals for herself: she would like to eventually become a counselor or child care worker.

Rafael Allende

Thirty-eight year old Rafael Allende is a fairly typical representative of the students who take advantage of the Amalgamated Clothing and Textile Workers Union's programs. Most of the students in the ACTWU program are immigrants from Latin America and the Caribbean who are in jobs that offer little or no opportunity for advancement. Their program offerings include

five levels of English literacy instruction, two levels of Spanish literacy, and two levels of Spanish GED. Most classes meet for a three hour session twice a week in the evenings.

Allende emigrated from Guatemala to the United States four years ago with little, if any, knowledge of English. Although he had majored in the dramatic arts in a Guatemalan university, he had few employable skills. Shortly after arriving in New York City, he was able to find low paying factory maintenance positions. Gradually, Allende was given tasks requiring greater skills and now works at installing electrical appliances and air conditioning units.

Soon after his arrival in this country, Allende heard about the GED and ESL courses offered by ACTWU. Three years ago, he started a union GED course which combined offerings in both Spanish and English. After passing his GED test in early 1990, Allende began coursework in an ACTWU sponsored ESL class. Much of the work in this course consisted of thematic conversation, grammar, reading, writing, and listening. Since his English skills were still below par, Allende and the interviewer had to occasionally rely upon the assistance of the bilingual union liaison to translate. Still, Allende reported that both courses have helped him immensely. In fact, he is presently a student delegate and represents his classmates at union meetings.

Allende's Job/Task Analysis form as well as his interview highlighted the positive effects his courses have had on his job performance. For example, he is now able to read labels on boxes

such as "UP" or "FACE DOWN." He has a greater understanding and comprehension of electrical instructions and is no longer fearful that he may injure himself while handling electrical appliances. Most importantly, Allende stated that his communication skills have improved: "One day my boss accused me of something I did not do. I was able to prove my innocence by talking. I understand what the people at work are saying now. My class helped me communicate with all personnel." Allende has high hopes for the future, including a college degree.

Linda Trevino

Thirty five year old Linda Trevino is an active member of the International Ladies Garment Workers Union Literacy and Specific Skills program who is presently vice president of the ILGWU student council. Trevino has been an active participant in union classes since 1986 and has taken courses in basic literacy, ESL, and specific skills classes such as draping and basic sewing. Trevino's classes address the workers' needs for basic literacy and for skills relevant to job acquisition, retention and promotion. They meet on a semester basis, two evenings a week for three hours per session.

In 1980, Trevino arrived in New York with her family from Ecuador via Mexico with some sewing skills but little knowledge of English. However, without visas, she and her family barely survived by working on minimum wage jobs. After receiving her green card, she began work in a low paying assembly line position in the garment district. In 1982, Trevino switched to a union

(ILGWU) bridal dress house where she started out as a sewing machine operator but quickly rose to the position of designer's assistant which entails cutting, embroidering, pinning lace work, and sewing dresses. She was at first fearful of becoming a union member, but her friends pointed out the many benefits she and her family would receive including paid holidays, health insurance, and the opportunity to attend classes if she joined.

Since 1986, Trevino has attended ILGWU sponsored classes including courses in ESL, GED, computer basics, and draping. In 1986, she received her GED degree which she said "gave her more confidence." When Trevino first arrived at the bridal dress house, she just did basic machine sewing and did not need to speak much. In her present position as assistant to the designer, however, she does much more elaborate work. "Now I can read pattern, setting, and lining orders. Before I would rely upon someone else to translate for me. I also do advanced cutting now." She credits her improved communication skills to her ESL classes, which focused on "sewing" language in addition to general conversational skills. "Before I could not write 'back,' 'front,' or 'waist' on my orders. My English classes helped here. I also can say more than 'yes' or 'no' to my boss and co-workers." She is now able to take and write down phone messages for them without difficulty. Although she does not need computer skills at work, she'll frequently ask her employer if she can use his computer to type letters.

Trevino's heightened self esteem led her to eventually run

for and win the office of vice president of the Student Council for the ILGWU. She now deals with approximately 200 students and takes great joy in her work for the union on their behalf. However, Trevino's large family, her job, and her union position leave little time for reading and writing at home, albeit she does occasionally write letters in her role as vice president. Although she is very happy with her job, Trevino stated that she may eventually look for something else "to help me grow. This is a wonderful country. It helps you do better things."

Felix Johnson

Forty-seven year old Felix Johnson, a divorced father of two sons, has worked for nine years in the Housing Authority as a "Caretaker J" maintenance employee in a Bronx apartment complex. He immediately joined Teamsters Local 237, the Housing Authority and Maintenance union, when he first started his position. The union offers members courses tailored to meet the needs of workers who already hold steady jobs and are interested in the climb to further success. In 1990, Johnson decided to take a course in Heat and Plant Technology in order "to turn my life around" and attends class two nights a week for three hours per session. His current job responsibilities as a janitor include "removing garbage from the basement to the compact room, policing the grounds, sweeping, mopping and polishing the staircases and floors."

Although Johnson is a high school graduate with 61 community college credits, he took the civil service exam before completing

his degree and ended up with his present position in the Housing Authority. Johnson's major was accounting, something he wants to pursue again in the future.

Regarding his decision to enroll in Local 237's Heat and Plant Technician course, Johnson stated:

> After nine years of sweeping and mopping steps and hallways and pulling garbage, I feel like I am not learning anything. It's not taking me anyplace. I'm learning more about different building systems now like heating and oil, plumbing, for example, and how they operate. You're able to balance yourself. It's a stepping stone for me. It's diversified and interesting.

Johnson's course work started in September, 1990 and ended in June, 1991, at which time he has to take a final exam to become eligible for a New York City permit. Johnson remarked "The class is great. I made a commitment to it and I have no problems. This to me is like a promotion. The next step is up. If there's an opening in the boiler room somewhere, I'll get it."

Johnson attended school two nights a week for three hours per evening. Unlike most of the other interviewees, Johnson had two teachers who were in attendance throughout all of the class sessions and worked in tandem: one teacher, an ex-navy man with over twenty years "Fireman" experience in the Housing Authority, taught the technical aspects of the course. The other instructor worked with them on skills development in the areas of reading comprehension, English, and math using the technical material presented by the other instructor as a base for her assignments. She also made herself available for after class tutoring sessions. In addition, both instructors required their students

to keep a daily log of the buildings in which they worked. Johnson maintained "I was constantly writing and taking notes while I was working and looking at the boilers in my building."

Johnson asserted that this course had no impact whatsoever on his current job. "It is only a stepping stone to a better position within the Housing Authority." Nor did Johnson mail back his log sheet and the Job/Task Analysis form.

However, Johnson stated throughout the interview that his class:

> ...made me think. It's great. It enriches my brain and opened my mind to knowledge. Before it was closed in a dead end job. It's opened the world to me. I'm not just someone who mops the floor. I have a brain and am a person who can use technical knowledge.

Utility of Work Logs

Workplace education programs are frequently challenged to provide data to support the contention that educational interventions actually affect job performance. One method of collecting this evidence relies on employer ratings of employee performance before and after workers participate in educational interventions. Notwithstanding all of the methodological issues involved in rating individuals one knows, and who are also known participants in an educational intervention, some union education programs have philosophical difficulties with employer-employee rating schemes.

To explore the extent to which it was feasible for employees to rate themselves the worklog and task analysis rating procedure was introduced. The primary finding of this effort was that the workers' log sheets and task analysis forms concurred with what was said during the interviews regarding what they did on the job and how skills learned in the classroom influenced their work. Thus this procedure received some support. However, from a procedural methodological perspective much remains to be done.

First and foremost, for the job/task analysis and log forms to work, explicit directions must be given. These directions must be made as simple as possible. As noted, some of the students had difficulty following the directions after they took the forms home even though considerable time was spent explaining to each student the directions and function of each form. Although examples were provided, e.g., packing crates, answering

the telephone, students had problems. It was also noted that those students who mailed back the forms the fastest had the least amount of difficulty. The students who had to be prodded by telephone communication or by mail seemed to have the most problems following the directions. Perhaps too much time had elapsed between the oral directions they received and their date of completion. Proficiency in English did not seem to affect their ability to complete the forms accurately.

It is suggested that the next step in the development of this procedure involves improving the instructions and perhaps developing one form that combines the log with the task analysis and rating scale. A tryout with a much larger sample would then be in order. Recommendations regarding this approach are made with the understanding that all self-report procedures are open to a variety of biases that affect the confidence one has in the data they produce. It is therefore recommended that this approach could become one part of an assessment or evaluation (as was done in this study), and not the sole outcome measure of a workplace education program.